CLAIMS

1. A method for calculating the probability of a call being blocked in a network having a plurality of routes, comprising:

measuring a first probability (B_p) of a call being blocked on the primary route;

measuring a second probability (B_d) of a call being blocked at the secondary route, wherein a second incoming call enters the network at the secondary route and the second probability considers the impact of the second call; and

summing the first probability and the second probability.

2. The method of claim 1 further comprising:

determining the number of calls blocked in the network according to the expression $B_d(XB_p+Y)$ in which X represents the number of incoming calls at the primary route and Y represents the number of incoming calls at the secondary route.

3. A method for calculating the probability of a call being blocked in a network having a plurality of routes forming a route set, comprising:

determining the number of legs in each route;

determining the blocking probability for each leg; and

calculating the blocking in the network according to the equation:

$$1-\prod_{z=1}^{M}(1-P_z)$$

, wherein M is the number of legs for the route and P_z is the blocking probability for leg z.

4. The method of claim 3 wherein the network has the ability to reroute calls from one route to another and wherein the calculating step is performed according to the equation:

$$\prod_{y=1}^{N}\left[1-\prod_{z=1}^{M}(1-P_{yz})\right]$$

, wherein N is the number of routes in routing case, M is the number of legs for each route y in routing case and P_{yz} blocking probability for route y on leg z.

5. A method for calculating the probability of a call being blocked in a network having a plurality of routes forming a route set wherein the network is capable of rerouting network traffic based on the probability of blocking, comprising:

measuring a first probability (B_p) of a call being blocked on the primary route;

measuring additional probabilities of a call being blocked on each of the remainder of the routes in the route set, wherein additional incoming calls may enter the network on the remainder of the routes and the additional probabilities considers the impact of the additional incoming calls; and

calculating the probability of the route set blocking according to the equation:

$$\prod_{y=1}^{N}\left[1-\prod_{z=1}^{M}(1-P_{yz})\right]$$

, wherein N is the number of routes in routing case, M is the number of legs for each route y in routing case and P_{yz} blocking probability for route y on leg z.